

# Critical Review, Data Completeness, Data Certification

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# Critical Review

- Submitting Agency - process to ensure validity of data.
  - Review before Post.
  - Review separate report before Post.
- Headquarters – process routinely
  - Delete records when flagging too sensitive.
  - Periodic transmittal to RO to coordinate data review for flagged data.



# Critical Review

- Raw data criteria pollutant
  - 3YR historic max exceeded
  - 1<sup>st</sup> max 125% > 2<sup>nd</sup> max data set
  - Value > NAASQ
  - Year SLAMS certified
- Raw data non-criteria pollutant
  - 3 YR historic max exceed by 125%
  - 1<sup>st</sup> max 175% > 2<sup>nd</sup> max data set
  - Year SLAMS certified

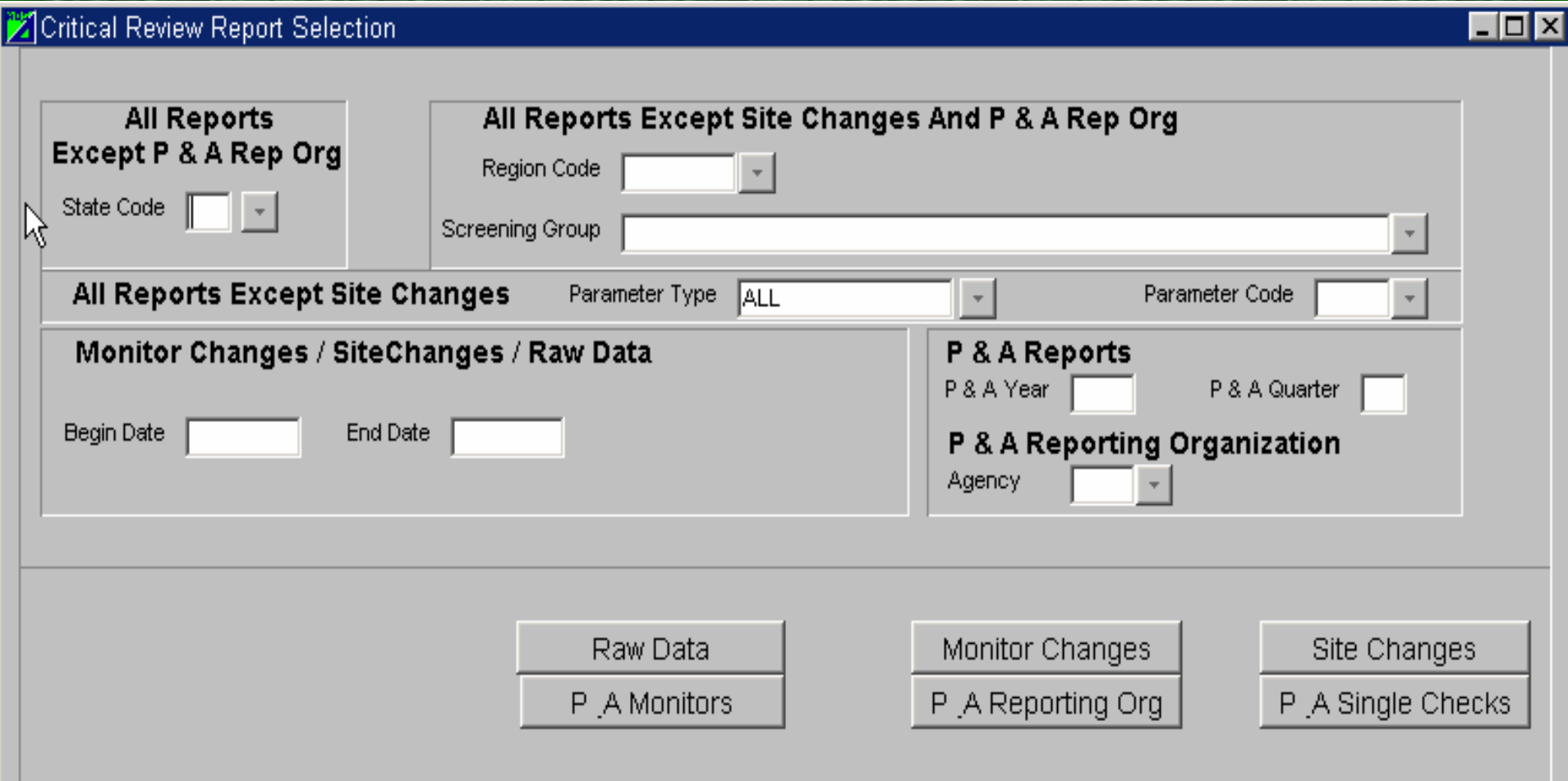
# Post Processing

Review Statistical Data (Great Basin, Ca)						
Raw Overview		Critical Review Raw Data		Statistical Errors		Raw Data
Monitor ID	Year - Quarter	CR Exists	Stats Exist	Monitor Locked	Date Locked	
▲ 06-027-0022-81102-1	2003-1	Y	Y	N		Release Lock
06-027-0022-81102-2	2003-1	Y	Y	N		Release Lock
06-027-0022-81102-3	2003-1	Y	Y	N		Release Lock
06-027-0022-85101-1	2003-1	N	Y	N		Release Lock
06-027-0022-85101-2	2003-1	N	Y	N		Release Lock
06-027-0022-85101-3	2003-1	Y	Y	N		Release Lock
06-027-0025-81102-1	2003-1	Y	Y	N		Release Lock
06-027-0025-81102-2	2003-1	Y	Y	N		Release Lock
06-027-0025-85101-1	2003-1	Y	Y	N		Release Lock
06-027-0025-85101-2	2003-1	Y	Y	N		Release Lock
06-051-0011-81102-1	2000-4	Y	Y	N		Release Lock
06-051-0011-81102-1	2002-2	Y	Y	N		Release Lock
06-051-0011-81102-1	2003-2	Y	Y	N		Release Lock
06-051-0011-85101-1	2000-4	Y	Y	N		Release Lock
06-051-0011-85101-1	2002-2	N	Y	N		Release Lock
						Release Lock
▼						Release Lock

# Post Processing

[illegible]

# Report Processing

A screenshot of a software window titled "Critical Review Report Selection". The window has a blue title bar with standard Windows window controls (minimize, maximize, close). The main area is light gray and contains several sections for report selection. At the top left, a section titled "All Reports Except P & A Rep Org" contains a "State Code" field with a text box and a dropdown arrow. To its right, a section titled "All Reports Except Site Changes And P & A Rep Org" contains a "Region Code" field with a text box and a dropdown arrow, and a "Screening Group" field with a long text box and a dropdown arrow. Below these, a section titled "All Reports Except Site Changes" contains a "Parameter Type" dropdown menu set to "ALL" and a "Parameter Code" field with a text box and a dropdown arrow. In the bottom left, a section titled "Monitor Changes / SiteChanges / Raw Data" contains "Begin Date" and "End Date" fields, each with a text box. In the bottom right, a section titled "P & A Reports" contains "P & A Year" and "P & A Quarter" fields, each with a text box. Below this, a section titled "P & A Reporting Organization" contains an "Agency" field with a text box and a dropdown arrow. At the bottom of the window, there are three groups of buttons. The first group has "Raw Data" and "P\_A Monitors" buttons. The second group has "Monitor Changes" and "P\_A Reporting Org" buttons. The third group has "Site Changes" and "P\_A Single Checks" buttons.

**Critical Review Report Selection**

**All Reports Except P & A Rep Org**  
State Code

**All Reports Except Site Changes And P & A Rep Org**  
Region Code    
Screening Group

**All Reports Except Site Changes** Parameter Type   Parameter Code

**Monitor Changes / SiteChanges / Raw Data**  
Begin Date  End Date

**P & A Reports**  
P & A Year  P & A Quarter

**P & A Reporting Organization**  
Agency

**Raw Data**  
**P\_A Monitors**

**Monitor Changes**  
**P\_A Reporting Org**

**Site Changes**  
**P\_A Single Checks**



# Critical Review Report



## Air Quality System

### Critical Review Report - Raw Data

Mar 24, 2003

#### Selected Criteria

State: NJ EPA Region: AL

Screening Group: ALL

Date Range: 01-JAN-2003 - 31-DEC-2003

Parameter Type: ALL

Parameter Name: ALL

Screening Group Name: NEW JERSEY

Monitor Id	Mon Type	Update Date	Action Ind	Critical Review Type	Unit	Sample Value	Sample Date/Time	Comp Value
34-001-1006-81102-1	S	20030303	I	Value >> 3-Yr Historical Max	ug/m3 SC	66	20020719 00:00	45
			I	Value >> 3-Yr Historical Max	ug/m3 SC	147	20020707 00:00	45
34-001-1006-85101-1	S	20030303	I	Value >> 3-Yr Historical Max	ug/m3 LC	147	20020707 00:00	46
34-001-1006-88101-1	S	20030212	I	Value >> 3-Yr Historical Max	ug/m3 LC	106.7	20020707 00:00	48.1
			I	Value > NAAQS	ug/m3 LC	106.7	20020707 00:00	65.0
34-003-0003-88101-1	S	20030212	I	Value >> 3-Yr Historical Max	ug/m3 LC	77.8	20020707 00:00	54.4
			I	Value > NAAQS	ug/m3 LC	77.8	20020707 00:00	65.0
34-003-0005-42602-1	S	20030107	I	Value >> 3-Yr Historical Max	ppm	0.084	20020909 19:00	0.082
			I	Value >> 3-Yr Historical Max	ppm	0.084	20020814 10:00	0.082
			I	Value >> 3-Yr Historical Max	ppm	0.086	20020909 18:00	0.082
34-003-0005-44201-1	S	20030107	I	Value >> 3-Yr Historical Max	ppm	0.128	20020813 12:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.128	20020709 14:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.130	20020812 13:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.130	20020802 14:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.131	20020709 13:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.132	20020812 14:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.135	20020802 13:00	0.127
			I	Value >> 3-Yr Historical Max	ppm	0.143	20020812 15:00	0.127

# Headquarters Delete Process

Critical Review - Delete Obsolete Records (Information Management Group)

Critical Review Raw Data Selection      Delete Obsolete Records

State  EPA Region Code

Screening Group

Parameter Type  Parameter Code

Begin Date  End Date

Errors to Include

- ☒ 1st Max >> 2nd Max
- ☒ Year Previously Certified
- ☒ 1st Max >> 3-Year Historical Maximum
- ☒ Value > NAAQS



# Delete Process

Critical Review - Delete Obsolete Records (Information Management Group)

Critical Review Raw Data Selection      Delete Obsolete Records

Monitor Id	Mon Type	Update Date	Action Ind	Critical Review Type	Unit	Sample Value	Sample Date/Time	Comp Value	Comparison Date/Time
<input type="checkbox"/> 06-027-0004-81102-4	S	20040503	<input type="checkbox"/>	Value > NAAQS	ug/m3	349.000	20040325 00:00	213.900	
<input type="checkbox"/> 06-027-0004-81102-4	S	20040503	<input type="checkbox"/>	1st Max >> 2nd Max fo	ug/m3	349.000	20040325 00:00	137.000	20040330 00:00
<input type="checkbox"/> 06-027-0004-85101-4	S	20040503	<input type="checkbox"/>	1st Max >> 2nd Max fo	ug/m3	319.000	20040325 00:00	125.000	20040330 00:00
<input type="checkbox"/> 06-027-0021-81102-2	S	20040503	<input type="checkbox"/>	1st Max >> 2nd Max fo	ug/m3	407.000	20040310 00:00	70.000	20040326 00:00
<input type="checkbox"/> 06-027-0021-81102-2	S	20040503	<input type="checkbox"/>	Value > NAAQS	ug/m3	407.000	20040310 00:00	213.900	
<input type="checkbox"/> 06-027-0021-85101-2		20040503	<input type="checkbox"/>	1st Max >> 2nd Max fo	ug/m3	374.000	20040310 00:00	65.000	20040326 00:00
<input type="checkbox"/> 06-027-0022-81102-1	S	20040517	<input type="checkbox"/>	Value > NAAQS	ug/m3	16462.000	20030202 00:00	213.900	
<input type="checkbox"/> 06-027-0022-81102-2	S	20040505	<input type="checkbox"/>	Value > NAAQS	ug/m3	283.000	20040102 00:00	213.900	
<input type="checkbox"/> 06-027-0022-81102-2	S	20040505	<input type="checkbox"/>	Value > NAAQS	ug/m3	250.000	20040228 00:00	213.900	
<input type="checkbox"/> 06-027-0022-81102-2	S	20040505	<input type="checkbox"/>	1st Max >> 2nd Max fo	ug/m3	4471.000	20040310 00:00	343.000	20040325 00:00
<input type="checkbox"/> 06-027-0022-81102-2	S	20040505	<input type="checkbox"/>	Value > NAAQS	ug/m3	4471.000	20040310 00:00	213.900	
<input type="checkbox"/> 06-027-0022-81102-2	S	20040505	<input type="checkbox"/>	Value > NAAQS	ug/m3	343.000	20040325 00:00	213.900	
<input type="checkbox"/> 06-027-0022-81102-2	S	20040517	<input type="checkbox"/>	Value > NAAQS	ug/m3	10933.000	20030202 00:00	213.900	
<input type="checkbox"/> 06-027-0022-81102-2	S	20040517	<input type="checkbox"/>	Value > NAAQS	ug/m3	6592.000	20030318 00:00	213.900	
<input checked="" type="checkbox"/> 06-027-0022-81102-3	S	20040517	<input type="checkbox"/>	Value > NAAQS	ug/m3	16619.000	20030202 00:00	213.900	

Check All      Uncheck All      Delete Checked Records

# Data Completeness

- Timeliness – percentage of data reported by the CFR deadline of 90 days after end of the quarter for last quarter.
- Completeness – percentage of data reported for the year after deadline for last quarter for the year.

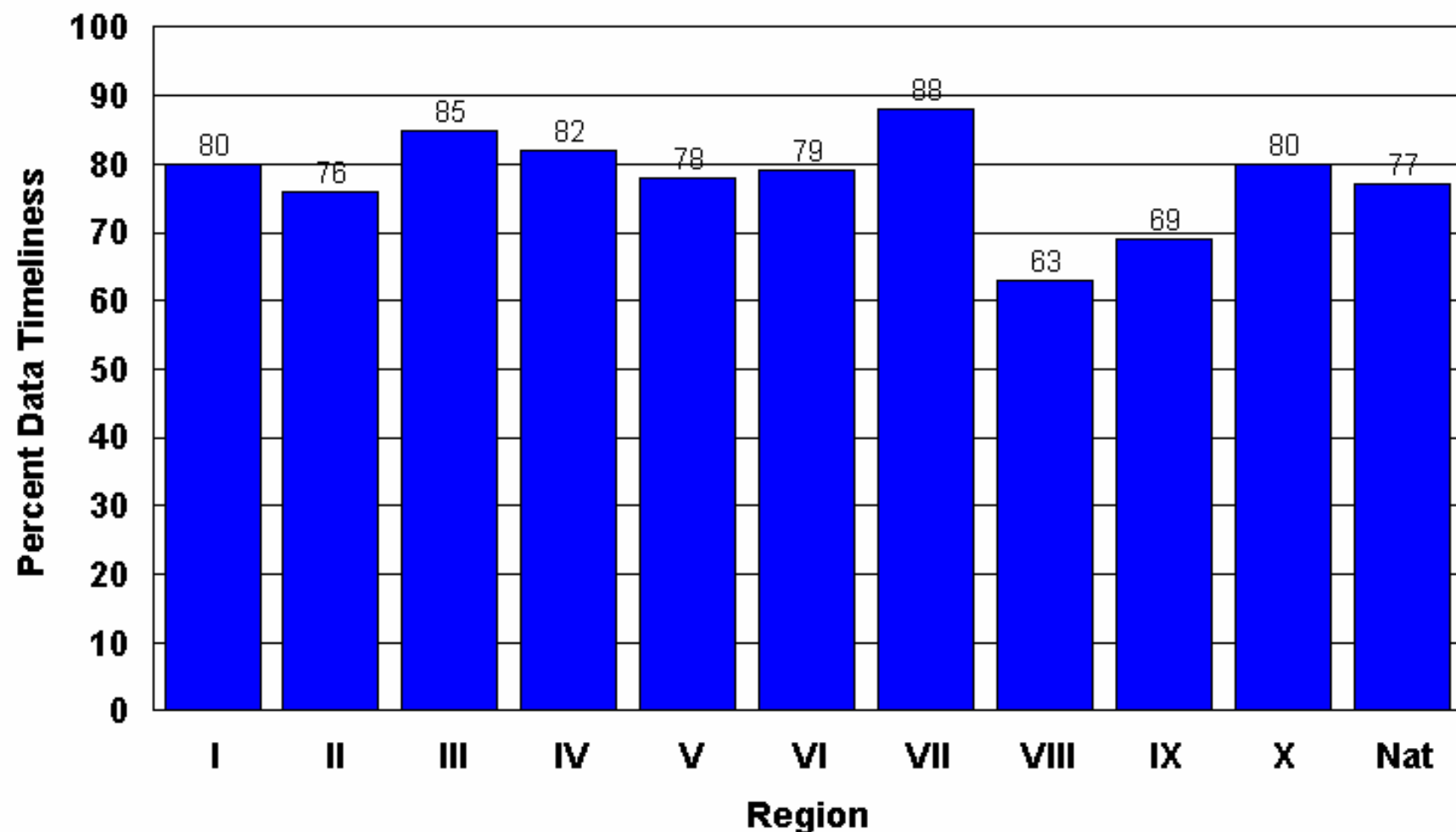


# Data Timeliness

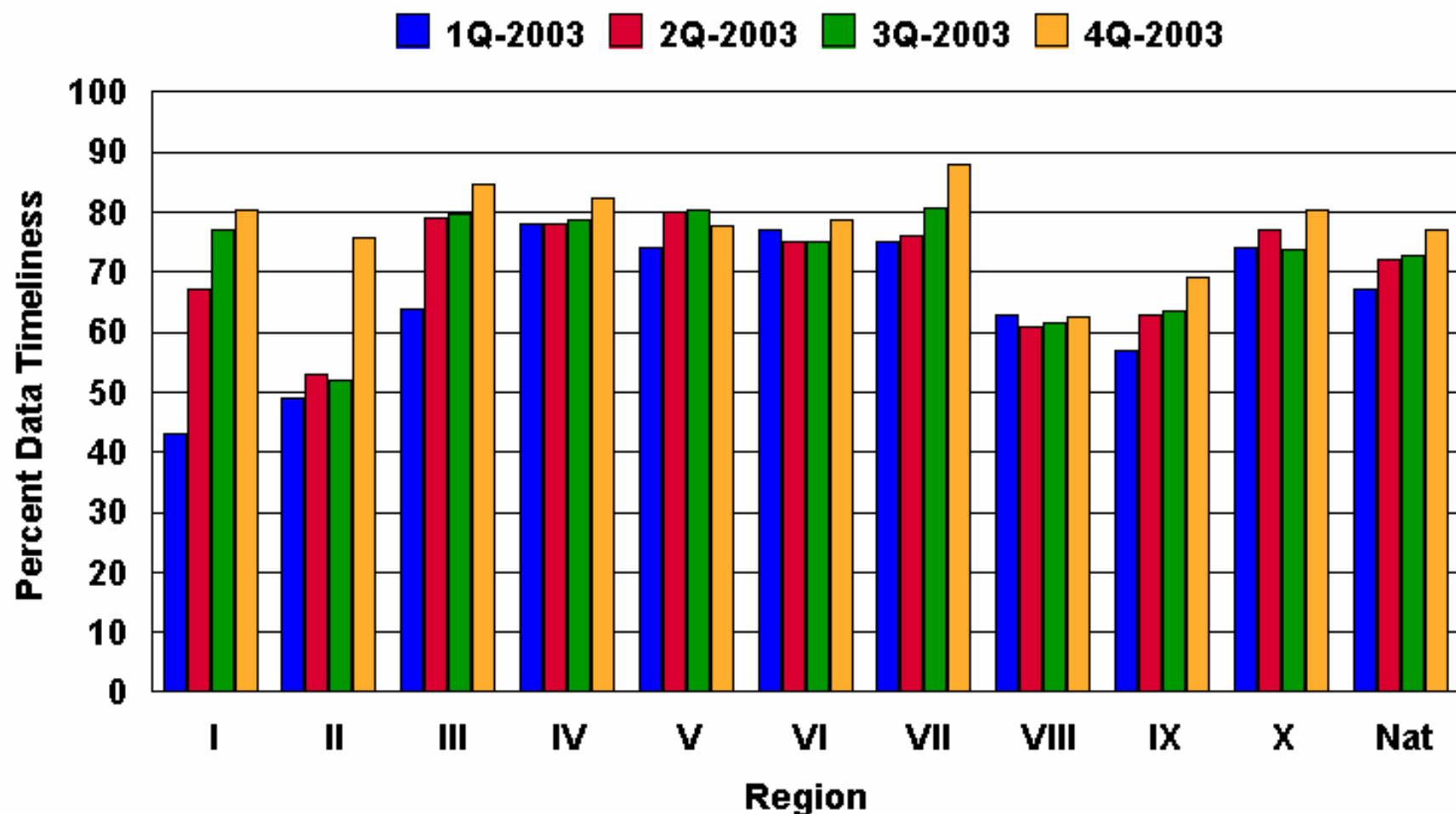
- 4Q CY-2003 (April 1, 2004)
  - Timeliness 77.0 %
  - 950 Sites with no data
  - Timeliness for active sites 90.8 %
  - Ozone 91.1 % highest timeliness
  - Other pollutants
    - PB 45.1%
    - TSP 61.0 %
    - Pm2.5 speciation 63.7 %



**Figure 1. Percent Data Timeliness**  
**October-December 2003 (as of April 1, 2004)**



**Figure 2. Percent Data Timeliness**  
**1Q-2003, 2Q-2003, 3Q-2003, & 4Q-2003**

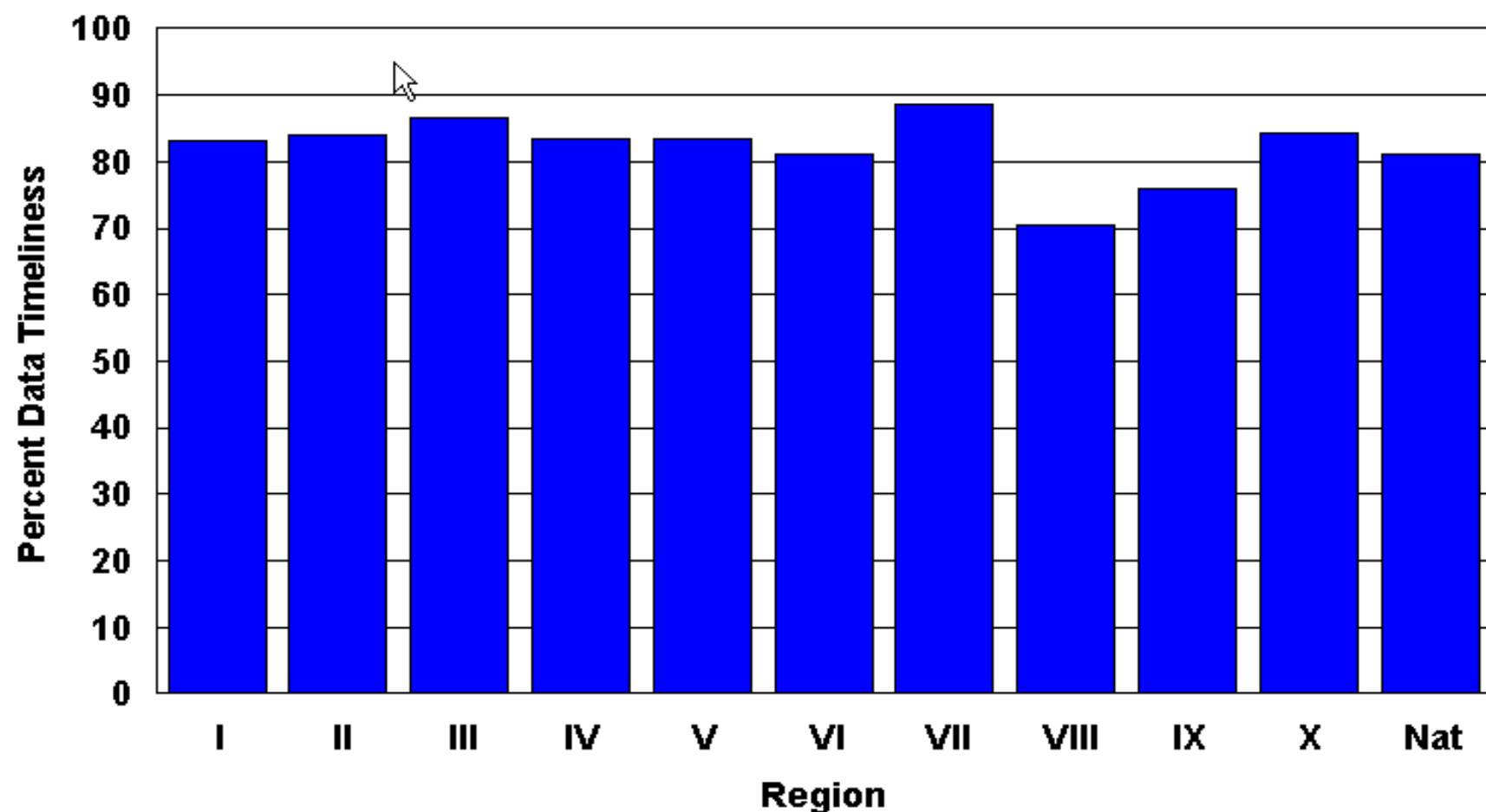


# Data Completeness

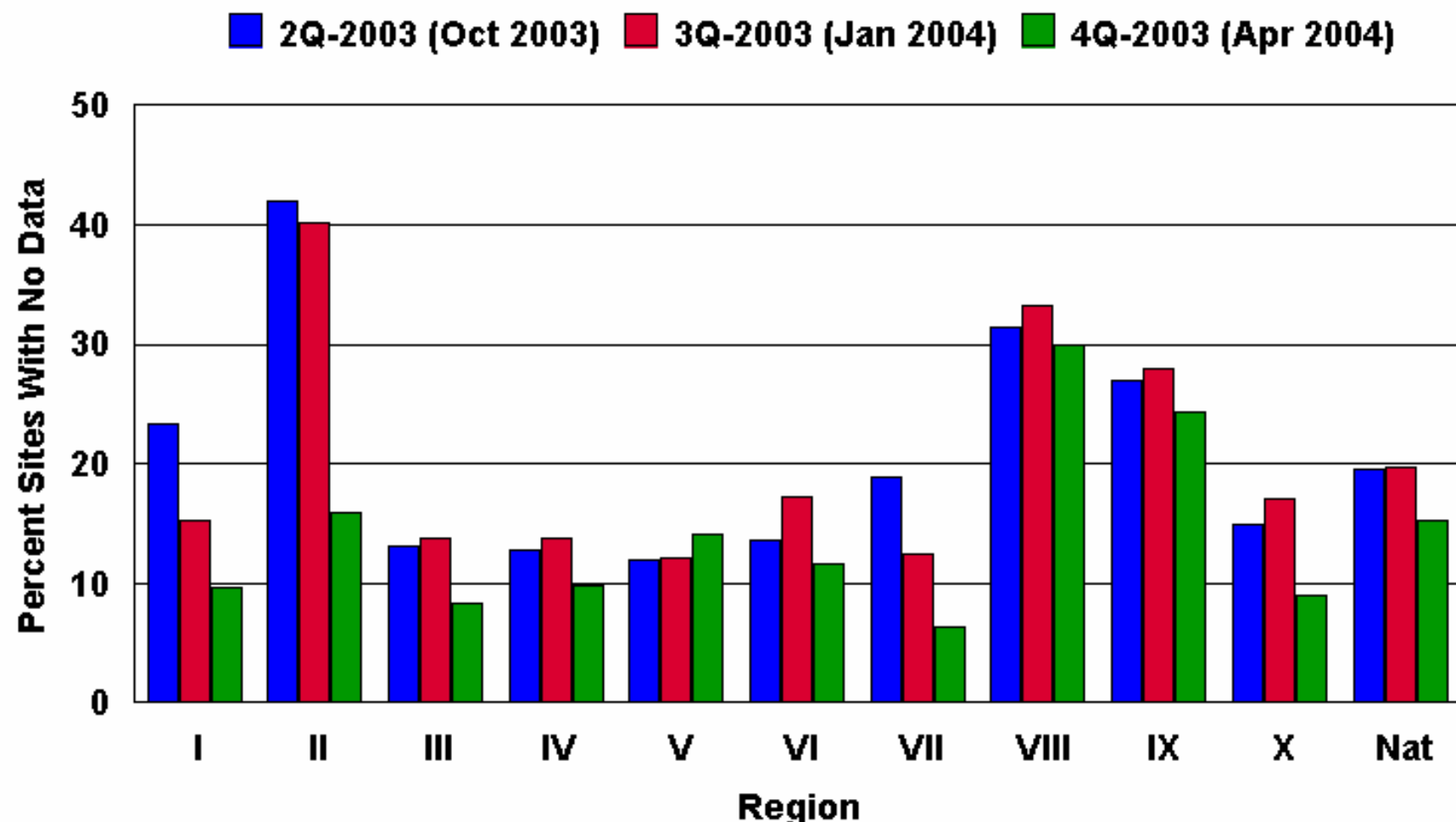
- CY-2003 (April 1, 2004)
  - Completeness 81.2 %
  - 562 sites with no data
  - Completeness for active sites 88.5 %
- Site sampling dates
  - Start date same as first sample
  - End date same as last sample
- P & A data for several years after quit
- Agencies should close out discontinued sites



**Figure 3. Percent Data Completeness CY-2003  
as of 4/1/2004**

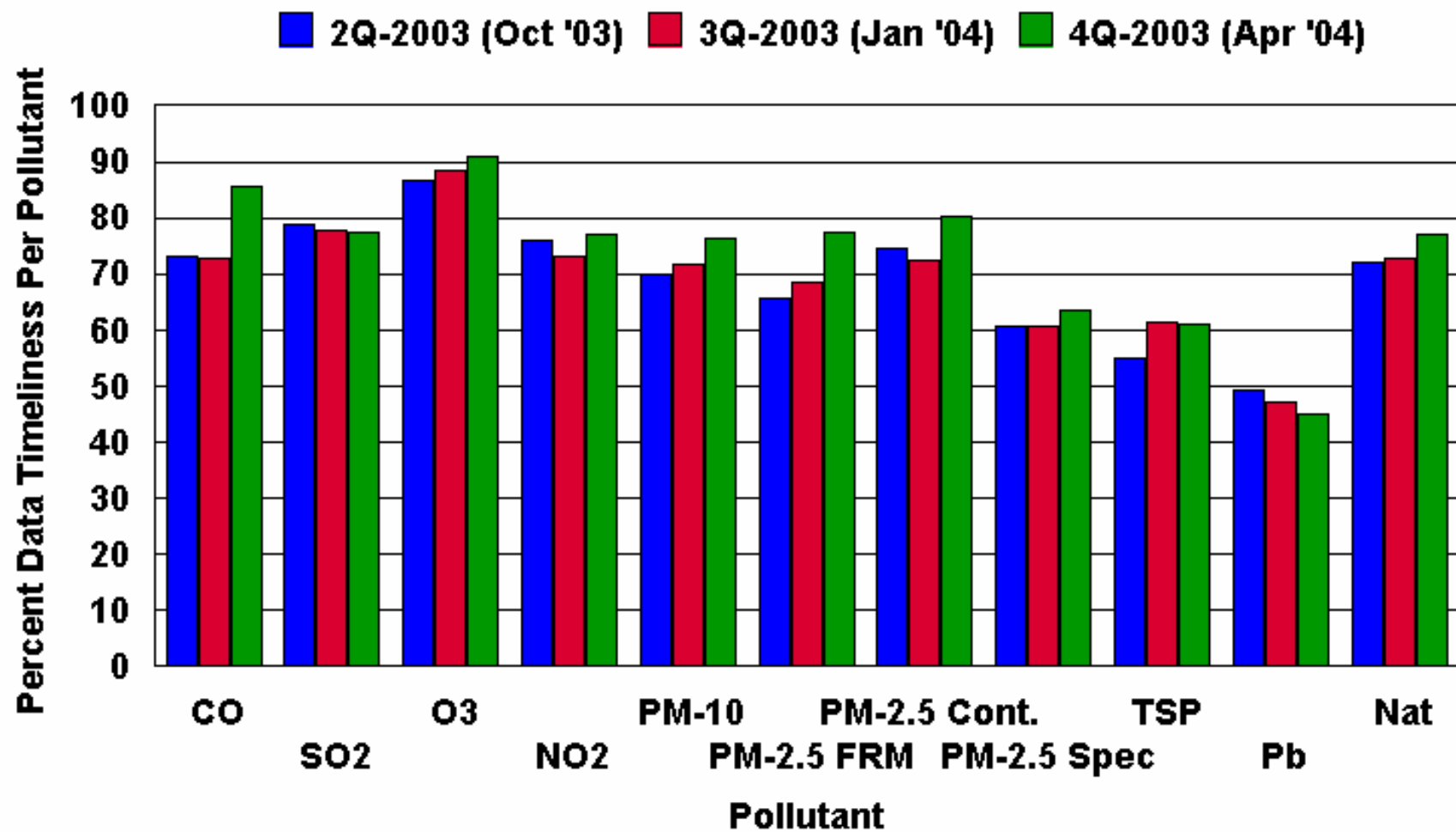


**Figure 4. Percent Of Sites With No Data  
For 2Q, 3Q, and 4Q 2003**





# Figure 6. Percent Data Timeliness By Pollutant For 2Q, 3Q, & 4Q-2003





# Data Certification

- CY-2002 Certification Status
  - Almost completed
  - AMP450 reports compared & changed data not flagged – must be re-certified
  - Emails to Regions 1-8 on specifics
  - P & A reviewed but not considered in certification



# Data Certification

- CY-2001 Certification Status
  - Will begin after CY-2002 completed.
  - AMP450 reports will be compared & changed data not flagged – must be re-certified.



# Data Certification

- CY-2003 Certification
  - Contract report for Regions by early June on P & A data as of early May
  - Requirements for certification
    - AMP450 Quick Look Report (no fax)
    - AMP240 Report Org Summary for P & A (no fax)
    - Signed copy (original or fax but no email) of certification letter



# Data Certification

- CY-2003 Certification
  - Critical review on completeness of P & A data for 2003.
  - Possible system modification to enter a not certifiable due to lack of P & A data
  - Policy is enforcing the OAQPS Quality Assurance Plan